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Fishing at the Base of the Pyramid

Perhaps the most abundant remaining source of wild protein on the planet is krill, a tiny crustacean that lives in Antarctic waters. It is fed upon by nearly every Antarctic species, including whales, penguins, seals and many kinds of fish. The species with the greatest appetite for protein is humans. That harvest has now increased enough to start worrying ecologists.

An article in *Nature* magazine on Sept. 1 [warns](#) that increased fishing “is adding to the pressure of environmental changes” already threatening krill. Since krill feed on algae that grow under the ice, they are especially susceptible to the effects of global warming.

None of the harvested krill turn up on consumers’ dinner plates as krill. Instead, it is ground up for fish meal for the aquaculture industry and processed into nutritional supplements. Meanwhile, no one is sure how many krill are out there. Estimates vary widely, from 100 million metric tons to perhaps 500 million metric tons.

The current harvest falls well within the agreed upon 5 million metric ton limit, but the commercial appetite is relentlessly growing. Norway has increased its fleet, and, for the first time, China is sending two krill boats to the southern ocean.

The treaty organization that sets the krill limit — the Convention on the Conservation of Antarctic Marine Living Resources — is scheduled to meet in October. It needs to establish fishing limits for specific areas instead of for whole oceans. It needs to work with its member nations to get a more accurate scientific picture of how krill are doing. Humans have overfished nearly every fishery. Overfishing krill would be especially destructive since it would threaten the food chain of the entire Antarctic.

